

**To:** McComb, Martin[McComb.Martin@epa.gov]  
**Cc:** Rob Runkel[runkel@usgs.gov]; Way, Steven[way.steven@epa.gov]  
**From:** Christner, Jan  
**Sent:** Fri 9/4/2015 2:39:33 AM  
**Subject:** RE: predicting A72 concentrations w/o GK treatment  
Concentrations with GKM Discharge.xlsx  
Current versus Historic pH.docx

See attached "Concentrations with GKM Discharge". First look at the 600 gpm tab, then the 500 gpm tab. The "Format 1" tab presents the same 600 gpm information in a slightly different format.

Before I waste time formatting this, please let me know what you think of the numbers. Are they useful? As you might expect, the contaminants most likely to be attenuated have the greatest percentage increase at A72.

A comparison of current and historic values is shown on the last tab.

Also attached is a summary of pH values for key locations.

Please let me know if you have questions, comments, or would like to see changes or additional information.

Jan

-----Original Message-----

From: McComb, Martin [mailto:[McComb.Martin@epa.gov](mailto:McComb.Martin@epa.gov)]  
Sent: Thursday, September 03, 2015 6:50 PM  
To: Christner, Jan

Cc: Rob Runkel; Way, Steven  
Subject: Re: predicting A72 concentrations w/o GK treatment

This will give us the core data, we can always reformat later.

Thanks, please proceed.

> On Sep 3, 2015, at 5:50 PM, Christner, Jan <[Jan.Christner@WestonSolutions.com](mailto:Jan.Christner@WestonSolutions.com)> wrote:

>

> See the attached Excel table to be sure this is what you expect.

>

> I concur with Rob's equations below.

>

> -----Original Message-----

> From: Rob Runkel [<mailto:runkel@usgs.gov>]

> Sent: Thursday, September 03, 2015 5:37 PM

> To: Christner, Jan; Steve Way; [mccomb.martin@epa.gov](mailto:mccomb.martin@epa.gov)

> Subject: predicting A72 concentrations w/o GK treatment

>

>

> As I said on the phone, perhaps more for me than for you, a

> recap:

**CBI/Ex. 4**

# CBI/Ex. 4

> This represents a worst-case calculation on two fronts - (a) it doesn't consider attenuation; (b) it assumes flow from the gold king will not decrease over time

>

> -----

> Rob Runkel

> Research Hydrologist

> U.S. Geological Survey

> [runkel@usgs.gov](mailto:runkel@usgs.gov)

> 303.541.3013

> <http://profile.usgs.gov/runkel>

> -----

>

> CONFIDENTIALITY: This email and attachments may contain information which is confidential and proprietary. Disclosure or use of any such confidential or proprietary information without the written permission of Weston Solutions, Inc. is strictly prohibited. If you received this email in error, please notify the sender by return e-mail and delete this email from your system. Thank you.

> <Concentrations with GKM Discharge.xlsx>

CONFIDENTIALITY: This email and attachments may contain information which is confidential and proprietary. Disclosure or use of any such confidential or proprietary information without the written permission of Weston Solutions, Inc. is strictly prohibited. If you received this email in error, please notify the sender by return e-mail and delete this email from your system. Thank you.